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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,852	04/16/2004	David Bono	F0017/7002	2087
21127 7590 05/15/2008 RISSMAN JOBSE HENDRICKS & OLIVERIO, LLP 100 Cambridge Street Suite 2101 BOSTON, MA 02114				
EXAMINER NGUYEN, HANH N				
ART UNIT		PAPER NUMBER		
2834				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/826,852

**Applicant(s)**

BONO ET AL.

**Examiner**

HANH N. NGUYEN

**Art Unit**

2834

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 17-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 9-12 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF-08)  
Paper No(s)/Mail Date 3/27/08 4/17/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "coil spring" must be shown or the features canceled from claim 6. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 6, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by McClintock (US 3,980,908).

Regarding claim 1, McClintock disclose an inductive energy harvester that generates electrical energy from mechanical vibrations (Col. 2, lines 15-25), the energy harvester comprising: a magnetic field source (magnet 80 in Fig. 2) having a first pole and a second pole that generate a magnetic field; an induction coil (60, 62); an induction coil support (40) that positions the induction coil near the first magnetic field source pole; and a mechanical connector (42) that mechanically couples the magnetic field source to the induction coil support in a manner that allows relative movement between the magnetic field source and the induction coil in response to the vibrations (Col. 4, lines 50-55).

Regarding claim 2, McClintock discloses an inductive energy harvester further comprising: a flux concentrator (81 in Fig. 2 and Col. 4, lines 64-65) attached to the first pole in order to concentrate the magnetic field emerging from the first pole in the vicinity of the induction coil.

Regarding claim 6, McClintock discloses an inductive energy harvester wherein the mechanical connector comprises at least one coil spring.

Regarding claim 13, McClintock discloses an inductive energy harvester wherein the induction coil (62 in Fig. 2) surrounds one pole of the magnetic field source.

Regarding claim 14, McClintock discloses an inductive energy harvester wherein the magnetic field source is a permanent magnet.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3, 4, 5, 7, 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over McClintock in view of Bandera (US 5,814,907).

Regarding claim 3, McClintock shows all limitations of the claimed invention except showing the inductive energy harvester wherein the mechanical connector comprises a spiral disk spring.

However, Bandera discloses an electromagnetic force motor wherein the mechanical connector comprises a spiral disk spring (18R in Fig. 2) for the purpose of reducing cost (Col. 3, lines 40-43).

Since McClintock and Bandera are in the same field of endeavor, the purpose disclosed by Bandera would have been recognized in the pertinent art of McClintock.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify McClintock by using a spiral disk spring as a mechanical connector as taught by Bandera for the purpose of reducing cost.

Regarding claim 4, Bandera discloses an electromagnetic force motor comprises a pair of spiral disk springs.

Regarding claim 5, Bandera discloses an electromagnetic force motor comprises at least one leaf spring (18R).

Regarding claim 7, Bandera discloses an electromagnetic force motor further comprising a flux yoke (21L in Figs. 1 and 5) attached to the second magnetic field source pole to provide a low reluctance flux path between the first and second magnetic field source poles.

Regarding claim 8, Bandera discloses an electromagnetic force motor wherein the flux yoke (21L in Fig. 1) surrounds the magnetic field source (15L).

Regarding claim 15, Bandera discloses an electromagnetic force motor further comprising a second magnetic field source (15R) arranged in magnetic flux opposition to the magnetic field source (15L).

***Allowable Subject Matter***

4. Claims 9-12 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if claims 9, 11 and 16 are rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 9, the prior art of record does not show the inductive energy harvester as described in claims 1 and 7 wherein the mechanical connector attaches to the flux yoke.

Regarding claim 11, the prior art of record does not show the inductive energy harvester as described in claims 1 and 7 wherein the flux yoke is a magnet having a

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polarization that enhances magnetic flux in the vicinity of the induction coil.

Regarding claim 16, the prior art of record does not show the inductive energy harvester as described in claims 1 and 15 further comprising a magnetic flux concentrator positioned between the magnetic field source and the second magnetic field source and in the vicinity of the induction coil.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (571) 272-2031. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Darren Schuberg, can be reached on (571) 272-2044. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1000.

HNN

May 13, 2008

/Nguyen N Hanh/

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